Video Cassette Recorder

Panasonic NV-SD40B

Operating Instructions

VIDEOPlus+

VHS PAL

SUPER DRIVE SYSTEM

Before attempting to connect, operate or a
product, please read these instructions cc

VQT5210

Dear Customer

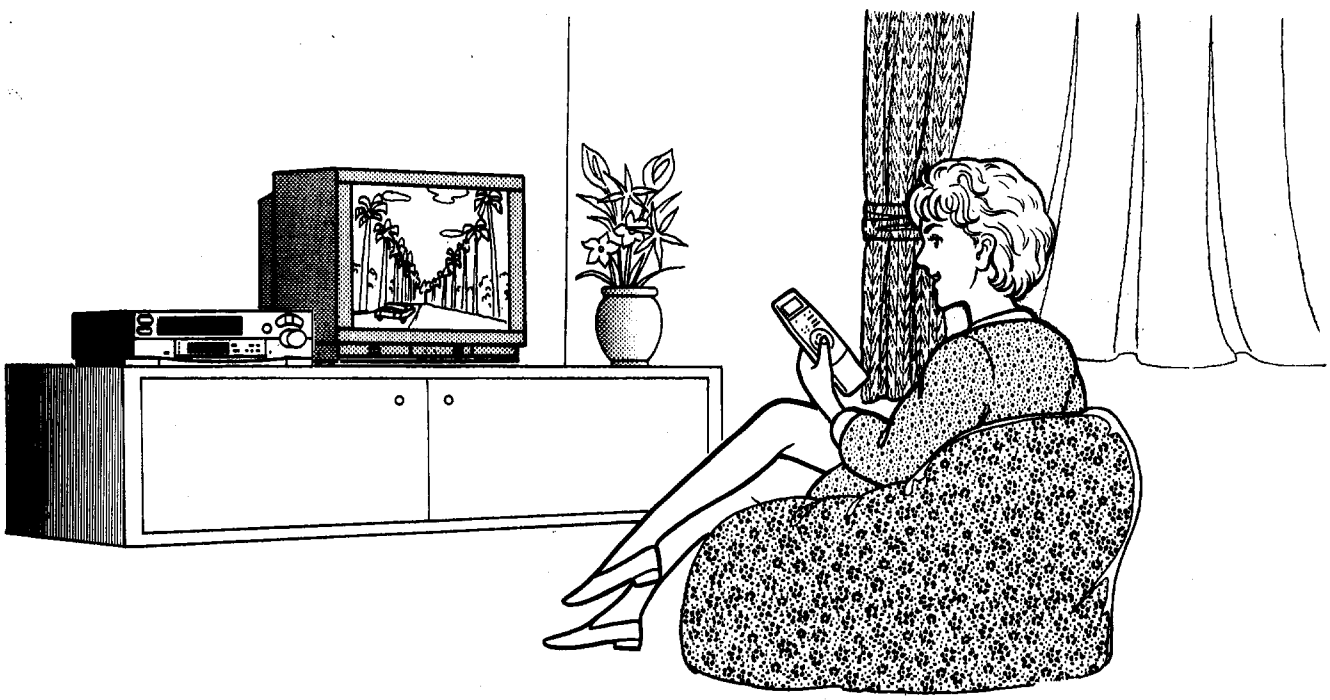
May we take this opportunity to thank you for purchasing this Panasonic Video Cassette Recorder.

We would particularly advise that you carefully study the Operating Instructions before attempting to operate the unit and that you note the listed precautions.

Video Plus+ Programming System

Programming is now easier than ever: simply enter the PulsCode provided in the programme schedule column carried by newspapers and magazines.

- Video Plus+ and PlusCode are trademarks of Gemstar Development Corp. Video Plus+ system is manufactured under license from Gemstar Development Corporation.



Information for Your Safety

IMPORTANT

Your attention is drawn to the fact that the recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

This apparatus was produced to BS 800.

FOR YOUR SAFETY

■ **DO NOT REMOVE OUTER COVER.**
To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VTRs that use the conventional VHS system.

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Caution for AC Mains Lead

For your safety please read the following text carefully

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS 1362.
Check for the ASTA mark ⓐ or the BSI mark ⓑ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚.

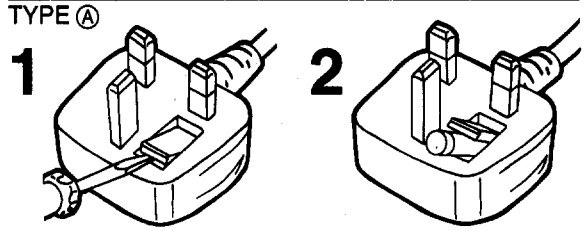
How to replace the Fuse

- There are two types of the supplied AC Mains Lead: Ⓐ and Ⓑ as shown below.

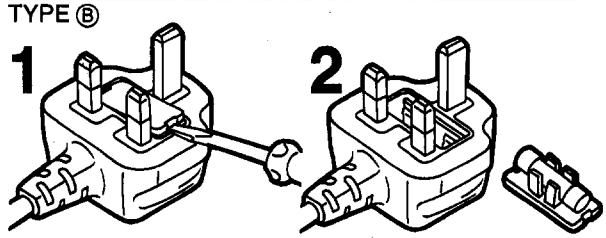
1 Open the fuse compartment with a screwdriver.

2 Replace the fuse and fuse cover.

TYPE Ⓐ

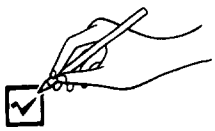


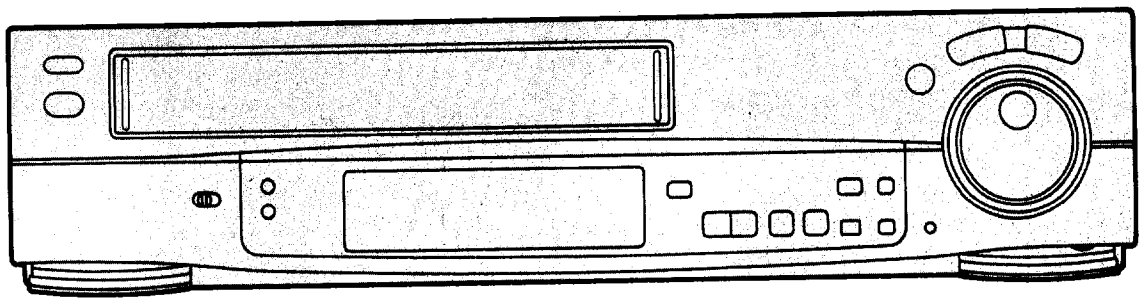
TYPE Ⓑ



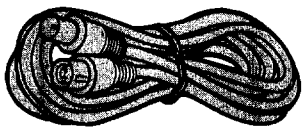
Unpacking

Check and identify the supplied accessories, and then set up this VTR after reading Setting up.



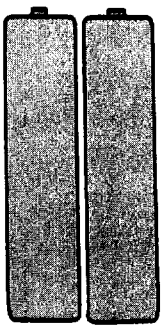


☐ RF coaxial cable for connecting between this VTR and a TV (1 pc.)
VJA0376-1 or VJA0376-B

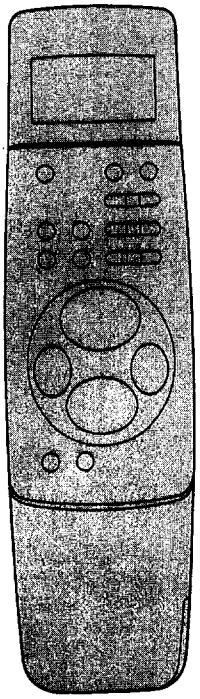


☐ AC mains lead (1 pc.)
VJA0733 or VJA0733-A

☐ Batteries for the remote controller (2 pcs.)
UM3 or R6 type



☐ Remote controller (1 pc.)
VEQ1485



Setting Up

Connections

This tells you how to connect with an aerial, TV, etc.

Tuning the TV to your VTR

The VTR supplies a signal to the TV set via the RF coaxial cable on channel 36 of the UK broadcasting system. Your TV must be tuned into this channel in order to view the VTR playback picture.

If the connection to the TV includes the 21-pin scart cable, the playback picture can be viewed by selecting AV on your TV. The RF coaxial cable must still be connected as shown on page 8, but the TV need not be tuned to channel 36.

Storing TV Broadcasts into your VTR

The VTR is fitted with its own TV tuner (just like a normal TV set) and can be tuned to receive up to 99 TV broadcast stations.

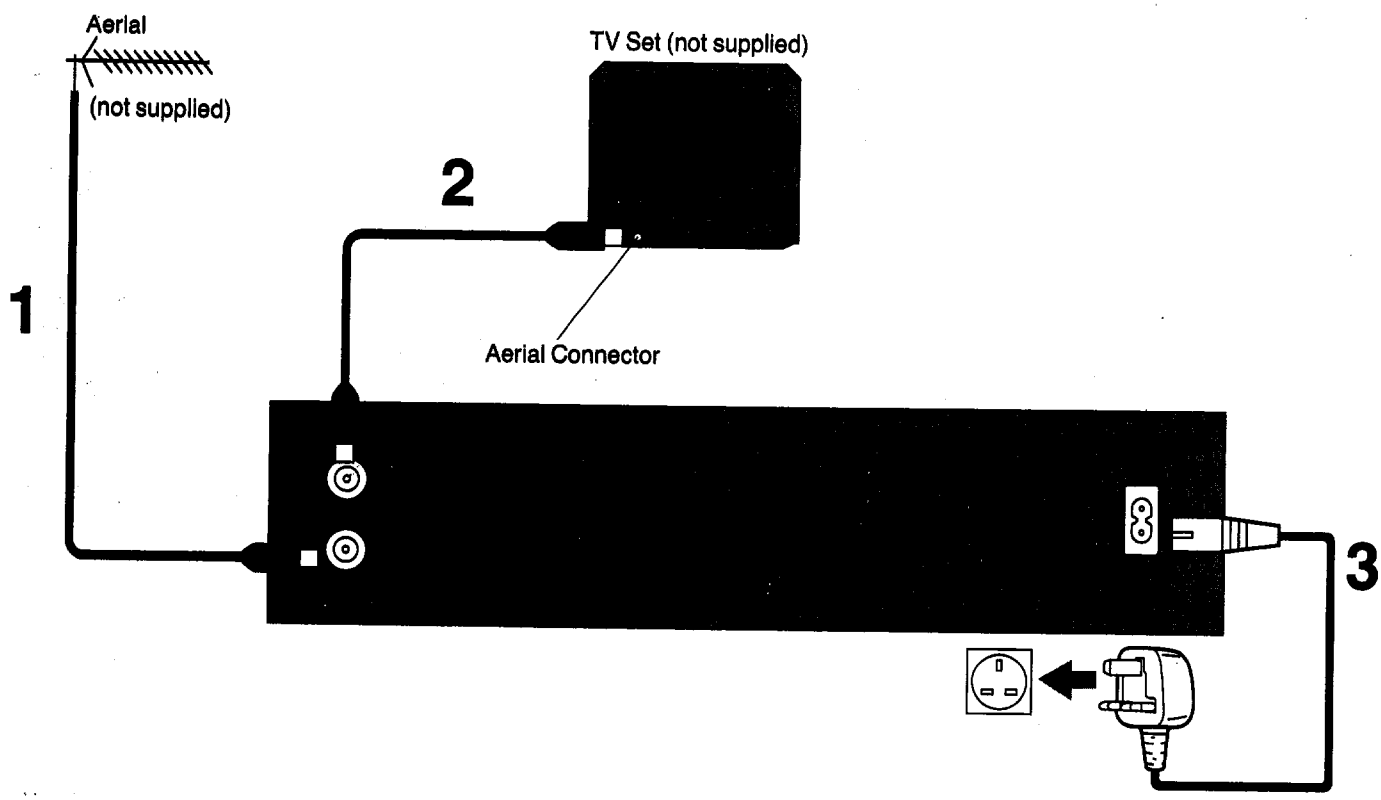
Setting the Clock of the VTR

The built-in clock is used to activate the timer for automatic recording and must be set to the correct time.

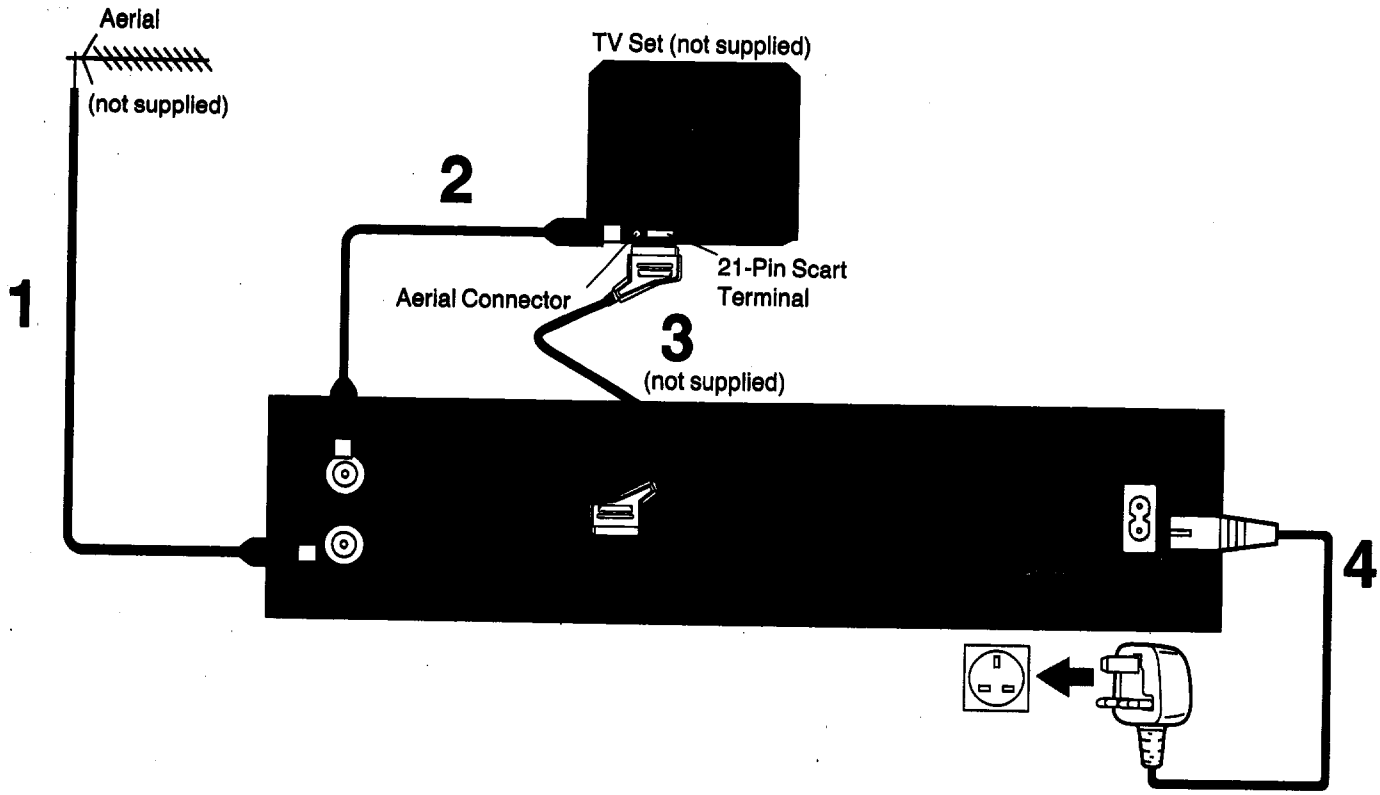
Connections

Basic Connections

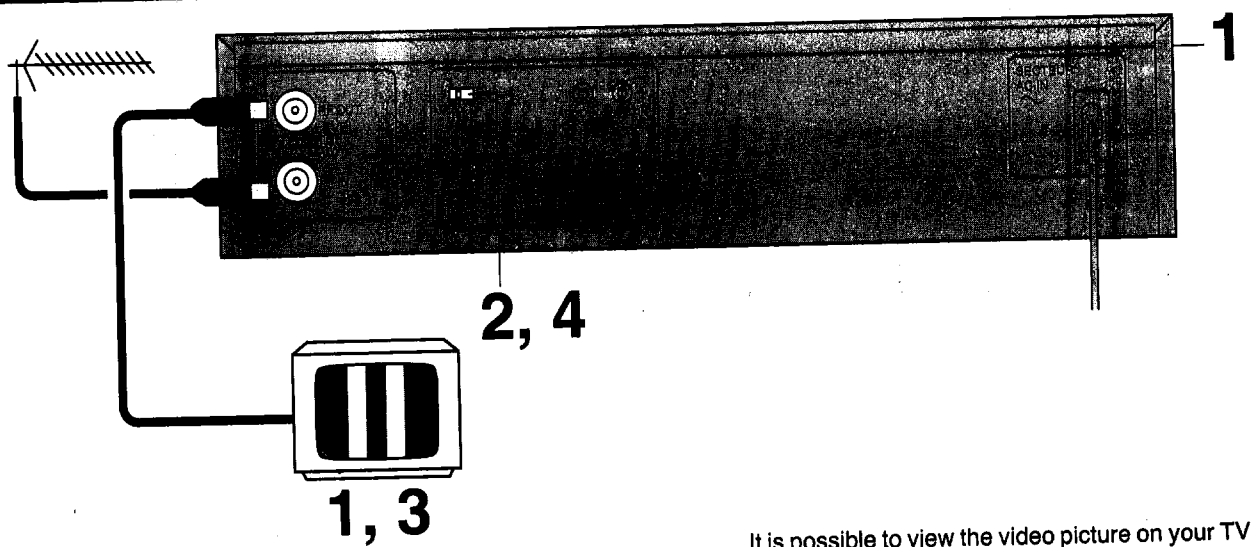
The following connections are required to record and play back the VTR through a TV set:



Connection to a TV Set with 21-Pin Scart Terminal



Tuning the TV to your VTR



It is possible to view the video picture on your TV in the same way that you watch TV broadcasts.

If you have connected the VTR to the TV through the 21-pin scart terminal, then you do not need to follow the procedure mentioned below.

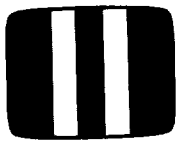
Operations

1 Turn on the TV and VTR.

2 To generate a test pattern, set **TEST SIGNAL** to ON.

3 Set the TV to an unused position which you wish to use for your video playback.

- Tune the TV until the test pattern appears on the screen.

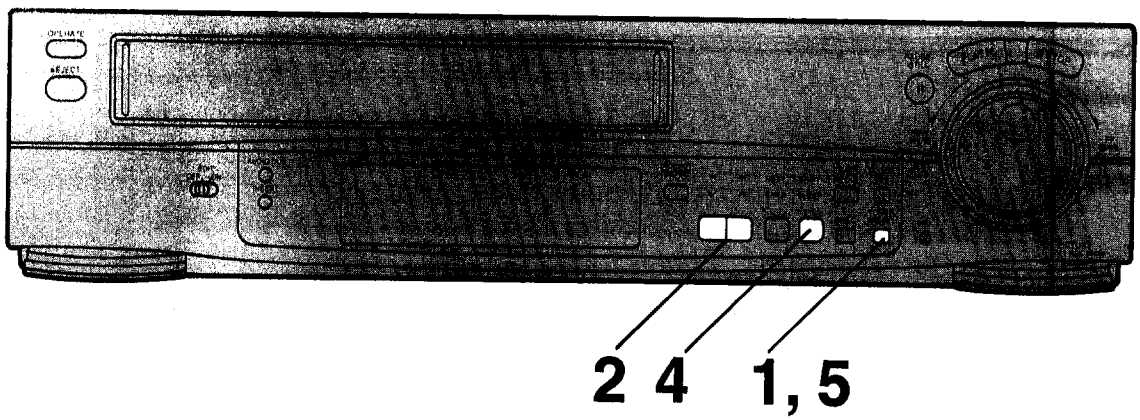


4 Set **TEST SIGNAL** to OFF.

Note:
The test signal is transmitted on channel 36 of the UK broadcasting channels. If you are encountering interference from another broadcast on the video channel, you may readjust to a free channel by using the **CH ADJ.** screw which is located on the rear of the VTR.

Please note that if the **CH ADJ.** screw is used then you will have to retune your TV to the test signal as in item 2 to 4 above.

Storing TV Broadcasts into your VTR

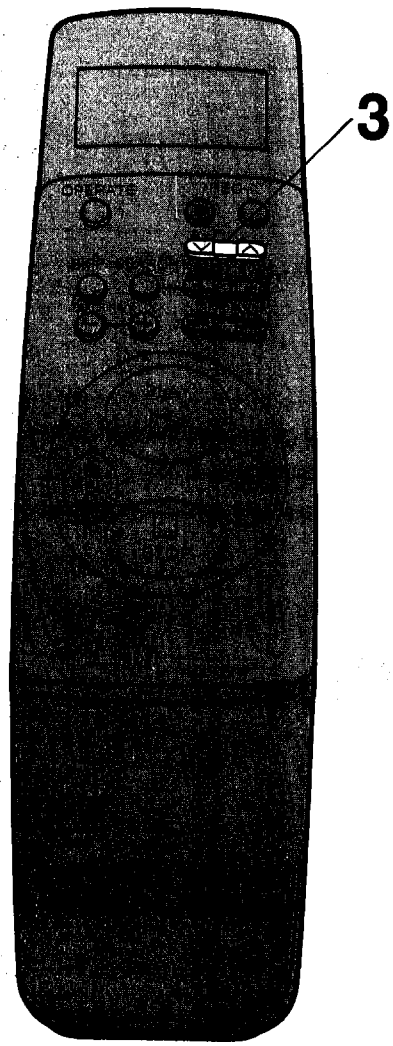


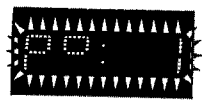
Introduction

The VTR is fitted with its own tuner (just like a normal TV set) and can be pre-set to receive up to 99 TV broadcast stations.

Preparation

- Confirm that the TV is on and the VTR viewing channel is selected.
- Turn on the VTR and select the programme position except A1 and A2.
- Install the batteries in the remote controller. See page 20.



Operations		Display Symbols	
1	TUNER PRESET		Keep **TUNER PRESET** pressed until a bleep sound is heard.
2	– +		Search for the TV Station. • If the required station is not displayed, press + or – again.
3			Select programme position.
4	SHIFT		Memorize the broadcast station. • To memorize the other stations, repeat steps 2 to 4.
5	TUNER PRESET		Press **TUNER PRESET**.

Note:

- While tuning, your video may lock onto several weak stations from distant transmitters. Should this occur press + or – again until a strong station is received.

Channel Plan

It is recommended that you set the programme positions on the VTR to match the remote controller setting, so when using the Video Plus+ programming the correct broadcast station is recorded.
The table below shows the correct setting:

Programme position	TV station
1	BBC1
2	BBC2
3	ITV
4	Channel 4
A1, A2, 5~20	*Satellite input

*Satellite input
To receive satellite stations, the satellite receiver must be connected to the VTR and programme position must be set depending on the type of the connection made.

A1: When the satellite receiver is connected to the AV1 socket

A2: When the satellite receiver is connected to the Audio/Video input sockets (AV2)

5~20: When the satellite receiver is connected by means of the RF coaxial cable. Follow the tuning procedure on page 10.

Tuning Procedure on the VTR

Stations can be tuned in by following the steps given below.

1 Press **TUNER PRESET** until a bleep sound is heard.

2 Search for the TV station by pressing + or −, and then press **NEXT**.

3 Select programme position by using + or −.

4 Press **SHIFT** to memorize the broadcast station.
- To memorize the other stations, press **NEXT** and then repeat steps 2 to 4.

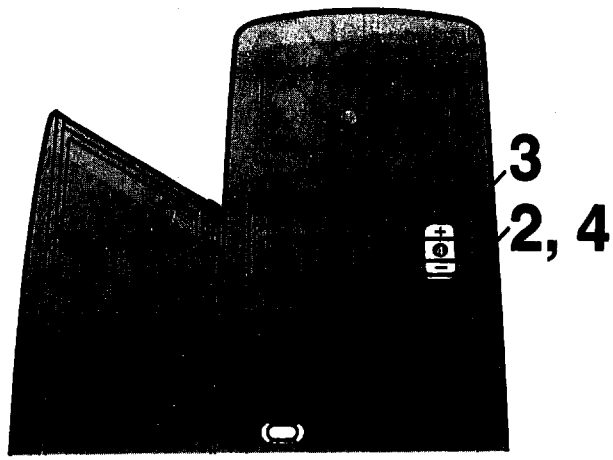
5 Press **TUNER PRESET**.

Setting the Satellite Position on the Remote Controller

The remote controller must be set to the selected programme position for the satellite receiver, in order to record satellite stations using Video Plus+ programming.

Note:
A satellite receiver cannot be operated using this unit's remote controller.

Preparation
Set the clock of the remote controller first. See page 12.

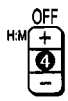


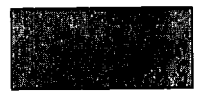
Operations **Display Symbols**

1 Open the door of the remote controller.

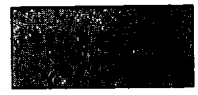
2 Keep **CLOCK/PRESET** pressed for 2 seconds or more and then press it again.

3 Select A1, A2 or 5~20.





4 Press **CLOCK/PRESET**.



5 Close the door of the remote controller.

Setting the Clock of the VTR

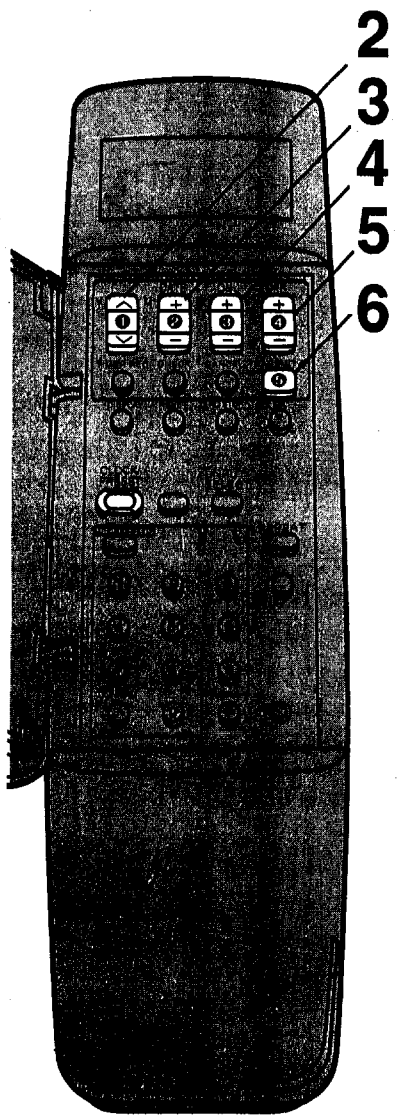
By setting the time on the remote controller's clock and then by transmitting this setting to the VTR, the clocks on both the remote controller and VTR display the same time. The built-in digital clock employs the 24-hour system.

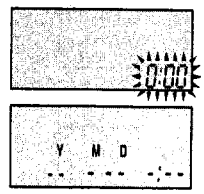
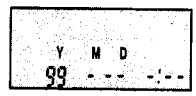
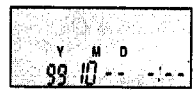
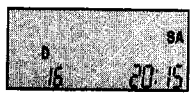
Preparation

- Turn on the VTR.
- Install the batteries in the remote controller. See page 20.

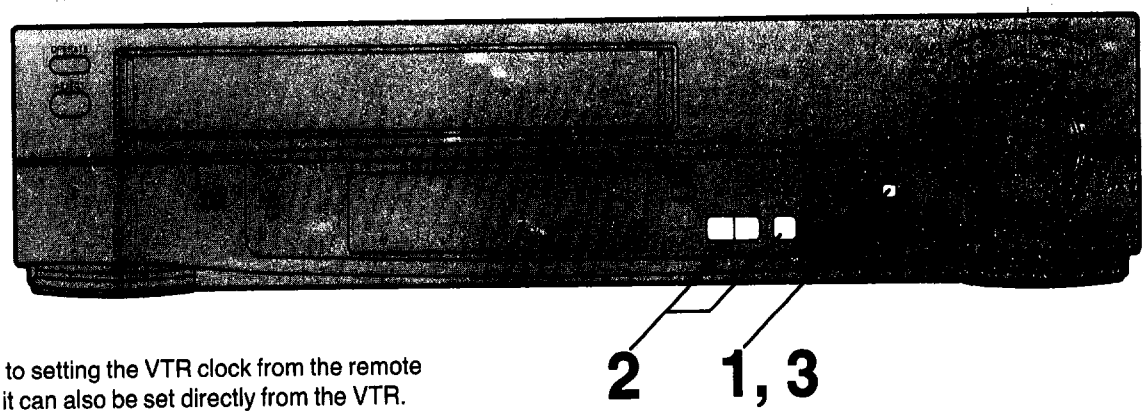
For Example:

Date; 16th, October, 1999
Time; 20:15



Operations	Display Symbols	
1		Open the door of the remote controller.
2 Y ❶		Set **Year** "99".
3 M DATE ❷		Set **Month** "10".
4 D ON ❸		Set **Date** "16".
5 H:M OFF ❹		Set **Time** "20:15". • When it is kept pressed, the indication changes in 30-minute steps.
6 TRANSMIT ▲ ❺		Press **TRANSMIT**.
7		Close the door of the remote controller.

Note:
To change the previous clock setting, press **CLOCK/ PRESET** for at least 2 seconds. The previous clock setting will be displayed. Then follow steps 2 to 7 above.

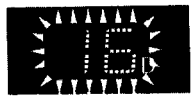


In addition to setting the VTR clock from the remote controller, it can also be set directly from the VTR.

Preparation

Turn on the VTR.

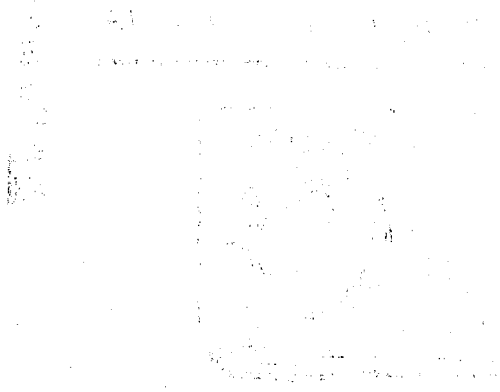
For Example:
Date; 16th, October, 1999
Time; 20:15

Operations		Display Symbols	
1	CLOCK SET		Keep **CLOCK SET** pressed until a bleep sound is heard.
2	Set each item by pressing + or – and **NEXT**.		
	– +		Set **Year** "99".
			Set **Month** "10".
			Set **Date** "16".
	NEXT		Set **Hour** "20".
			Set **Minute** "15". ●There is no need to press **NEXT**.
3	CLOCK SET		Press **CLOCK SET**. ●The clock will start.

Time Reset Function
If the clock is less than two minutes slow or fast, it can easily be reset to the proper time.
For example: Resetting the clock to 12:00.00.

1 Press **CLOCK SET** at any time between 11:58.00 and 12:01.59 until the bleep sound is heard.
2 Press **CLOCK SET** again as soon as you hear the 12:00.00 time signal.

Note:
The clock operates for at least 60 minutes by its backup system in the event of power failure.



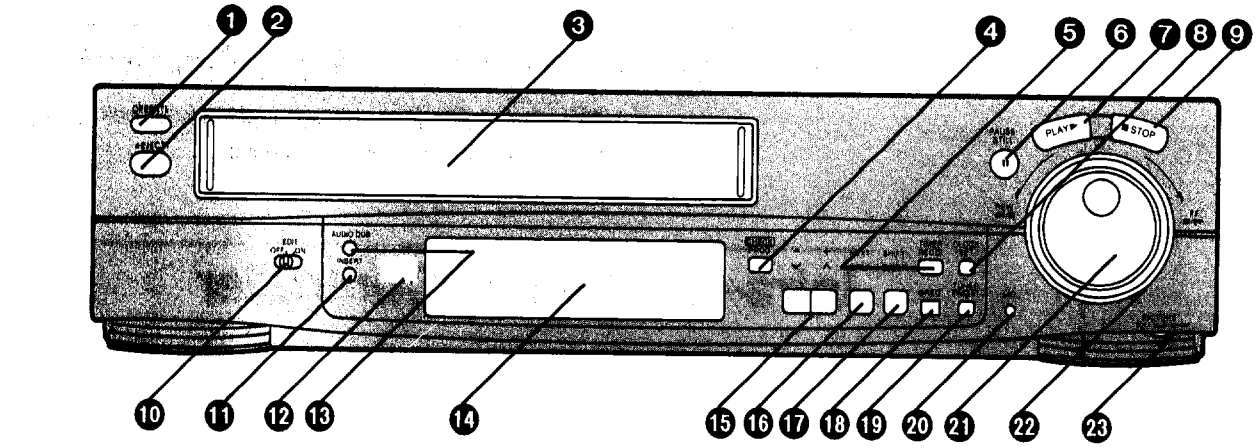
Description

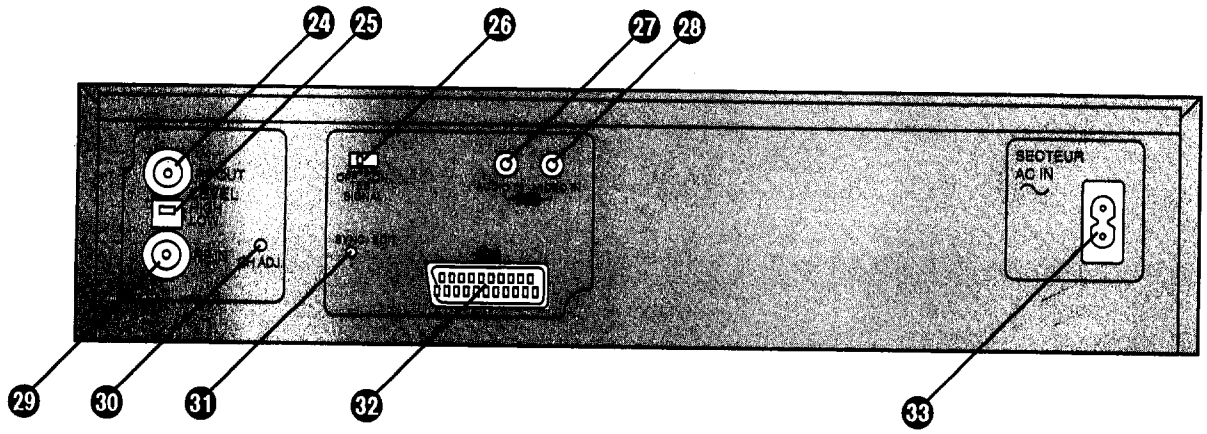
Controls and Connection Sockets

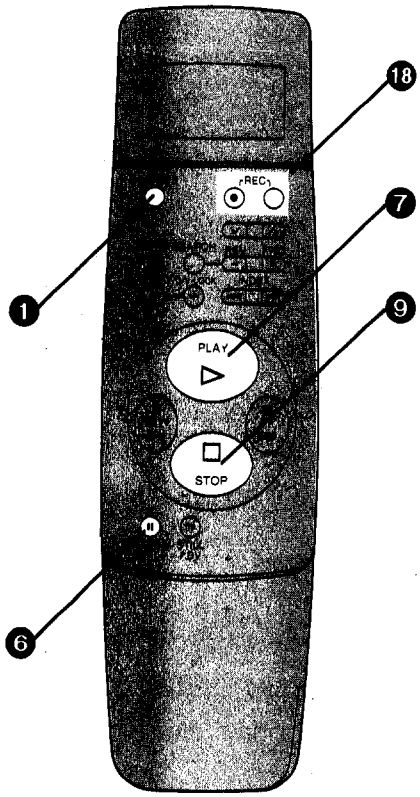
This gives a detailed explanation of the function of each button, switch and connection socket.

Infra-red Remote Controller

Controls and Connection Sockets







1 OPERATE
To turn the VTR on and off.

2 EJECT
To eject a video cassette.

3 Cassette Compartment
Insert a video cassette here.

4 CHECK/PROG
To select a timer programme number.
"1, 2, 3... or 8" is lit.
To display details of preset timer recording.

5 TIMER REC
To turn the timer recording function on and off.
⏲ is lit or not lit.
Once activating timer recording function, the normal VTR operation is not possible unless this button is set off.

6 PAUSE/STILL
During playback: Still picture.
During recording: To interrupt recording.

7 PLAY
To start playback. "▷" is lit.

8 CLOCK SET
To set the time.

9 STOP
To stop any playback or recording.

⑩ **EDIT**
OFF: For normal VTR operation.
ON: For dubbing.

⑪ **INSERT**
To set up the VTR for insert editing.
INSERT indicator lights up.

⑫ **Infra-red Remote Control Receiver Window**

⑬ **AUDIO DUB**
To set up the VTR for audio dubbing.
A.DUB indicator lights up.

⑭ **Display**

⑮ v ∧/− +
To select the required programme position (TV station).
To set the clock and timer recording.

⑯ **SP/LP/NEXT**
To select the tape speed required for recording.
SP gives the best picture quality.
LP gives the longest recording time.
To proceed to the next item during setting procedure.

⑰ **SLEEP/SHIFT**
To set the time to turn off the VTR automatically.
To memorize programme position.

⑱ **REC**
To start a recording.

⑲ **TUNER PRESET**
To initiate TV station settings for the tuner.

⑳ **MIC**
To connect a microphone for recording.

㉑ **Jog Dial**
To locate any desired frame with utmost precision.

㉒ **Shuttle Ring**
In the stop mode: To rewind or fast forward the tape.
In the playback mode:
To search picture backward or forward.
In the still playback mode:
To adjust playback speed backward or forward.
In the rewind or fast forward mode:
To obtain high speed picture.

㉓ **PICTURE**
To make picture sharper (SHARP) or softer (SOFT).

㉔ **RF OUT**
To connect to the aerial terminal on a TV set.

㉕ **LEVEL**
Used to adjust the UHF aerial signal strength.
HIGH: For normal position.
LOW: If a diagonal pattern or stripes appear on the picture.

㉖ **TEST SIGNAL**
The test signal is transmitted on channel 36.

㉗ **AUDIO IN (AV2)**
To connect an audio cable to a video camera or another video recorder.

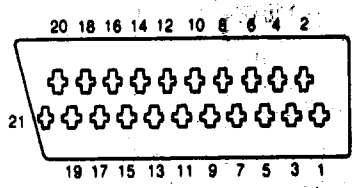
㉘ **VIDEO IN (AV2)**
To connect a video cable to a video camera or another video recorder.

㉙ **RF IN**
To connect to the external aerial.

㉚ **CH ADJ.**
To adjust the RF transmitting channel 30~42.

㉛ **SYNC. EDIT**
Connecting to a Movie Camera equipped with Synchro Edit Function.

㉜ **AV1**
This 21-pin scart terminal carries input and output signals for both picture and sound. TV sets equipped with a similar socket can be connected here.
This is also called Scart
Peritel
Euro Connector
Euro AV

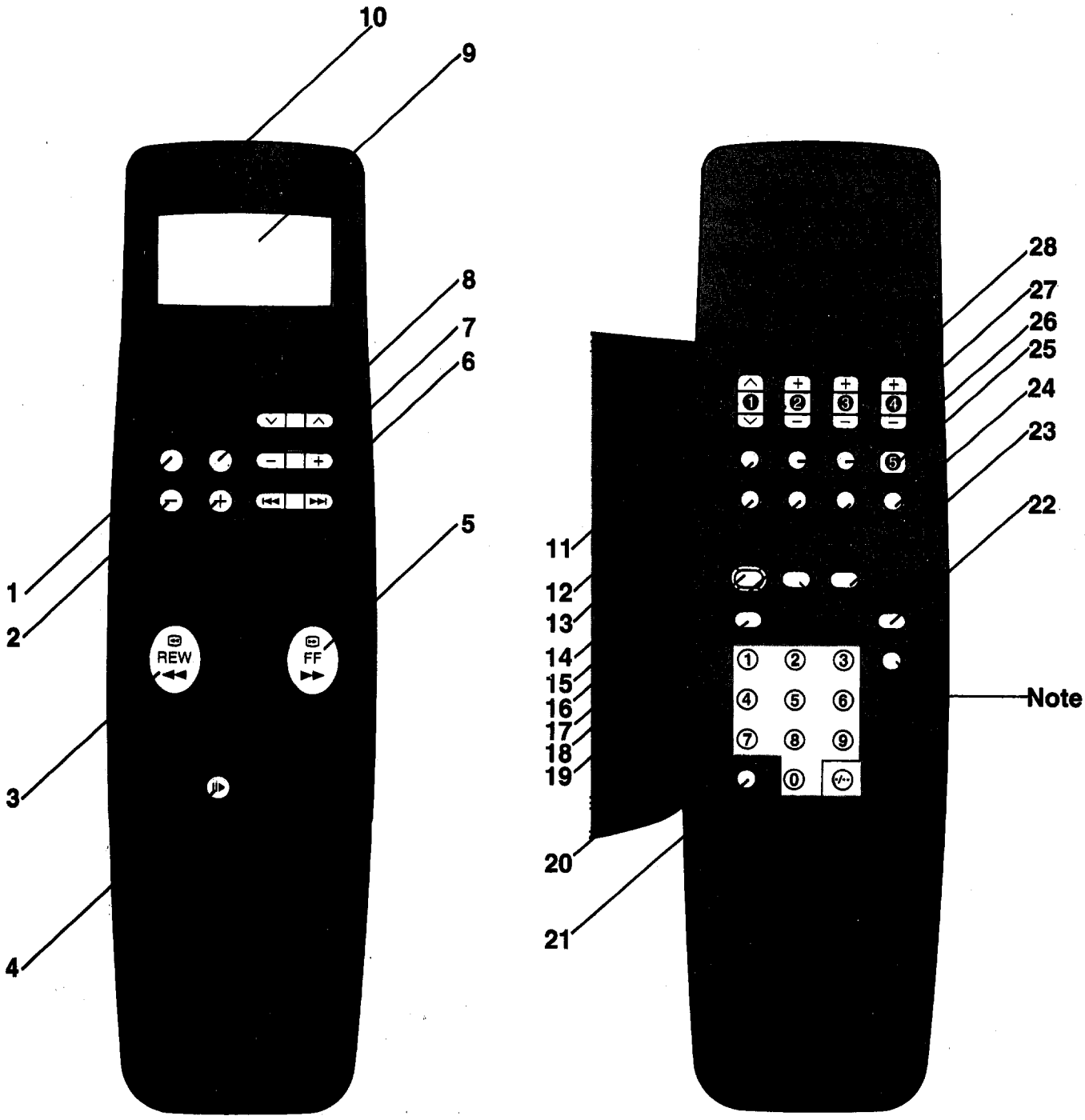


1 AUDIO OUTPUT	8 SWITCHING VOLTAGE
2 AUDIO INPUT	17 VIDEO GROUND
3 AUDIO OUTPUT	19 VIDEO OUTPUT
4 AUDIO GROUND	20 VIDEO INPUT
6 AUDIO INPUT	21 GROUND

No connection; 5, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18

㉝ **AC IN~**
To connect to the main power supply.

Infra-red Remote Controller



Note:
These buttons are not used for any operations.

1 SKIP
To start cue playback in 30 seconds interval during playback.
- Each press gives a 30 seconds time span up to 4 minutes.

2 TRACKING/V-LOCK
For manual tracking adjustment
The + and − buttons are used to adjust the tracking when, for example, noise bars on the picture are better removed manually than by the automatic digital tracking control. After making a manual adjustment, press both buttons together to return to automatic digital tracking control.

For slow tracking adjustment
When noise bars appear during Still, Still Advance or Slow playback, switch over to slow playback and adjust with the "+" or "−" button to reduce the noise bars.

For vertical locking adjustment
Use the + and − buttons to minimize any vertical jitter during still-picture playback.

3 REW (REWIND)
In the stop mode: To rewind the tape.
In the playback mode: To search backward.
In the rewind mode: To obtain high speed picture.
"◁◁" is lit.

4 STILL ADV
To advance a still picture during still playback.

5 FF (FAST FORWARD)
In the stop mode: To fast forward the tape.
In the playback mode: To search forward.
In the fast forward mode: To obtain high speed picture.
"▷▷" is lit.

6 INDEX
For the index search function.

7 SEARCH
To adjust the playback speed backward or forward.

8 ∨ ∧
To select the required programme position (TV station).

9 Display

10 Infra-red Transmitter
The programming data are transmitted from here to the VTR.

11 ∧ ∨ (Y)
- To programme a timer recording.
- To set the clock.

12 DATE (M)
- To programme a timer recording.
- To set the clock.

13 TIMER REC
To turn the timer recording function on and off.
⏲ is lit or not lit.

14 DISPLAY
To change the indication on the VTR Display.

↱Clock→Counter→Remaining Tape Time ↲

15 CHECK
To check timer programmes.

16 RESET
To reset the tape counter (elapsed time) to "0:00.00".
- The tape counter is automatically reset to "0:00.00" when a video cassette is inserted.

17 CLOCK/PRESET
- To set the clock.
- To set the satellite position.

18 ZERO STOP
For the zero stop function.

19 VIDEO PLUS
To programme a Video Plus+ PlusCode.

20 Programme Position Selector Buttons
- To select the programme positions.

9: (9)
19: (-/--) → (1) → (9)

- To enter a PlusCode.

21 CONFIRM
To convert the data of a PlusCode.

22 REPEAT
For the repeat playback function.

23 INPUT SELECT
To select the "A1" or "A2" external recording source.

24 TAPE SEL
To set the cassette tape length in order to obtain correct indication of the remaining tape time.
E195: For E30, -60, -80, -120, -180 and -195 tapes.
E240: For E240 tape.
E260: For E260 tape.

25 TRANSMIT
To transmit the data that has been set on the remote controller to the VTR.

26 CANCEL
To cancel the settings made for a timer recording.

27 OFF (H:M)
- To programme a timer recording.
- To set the clock.
- To set the satellite position.

28 ON (D)
- To programme a timer recording.
- To set the clock.

Note:
Fast forwarding or rewinding speed may slow if operated in the middle of the tape.

Power Source for the Remote Controller

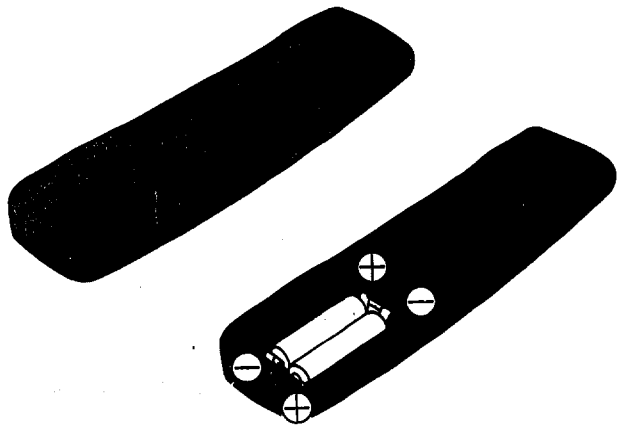
The remote controller is powered by 2 "UM3" or "R6" size batteries. The life of the batteries is about one year, although this depends on the frequency of use.

- When whatever appears on the display becomes faint, please replace the batteries with new ones.

Precautions for Battery Replacement

- Load the new batteries with their polarity (⊕ and ⊖) aligned correctly.
- Do not apply heat to the batteries, or an internal short-circuit may occur.
- If you do not intend to use the remote controller for a long period of time, remove the batteries and store them in a cool and dry place.
- Remove spent batteries immediately and dispose of them.
- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.

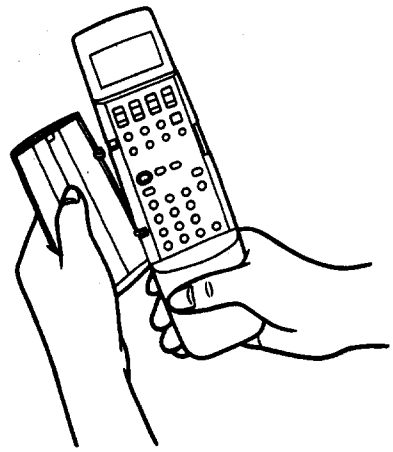
Installing the Batteries



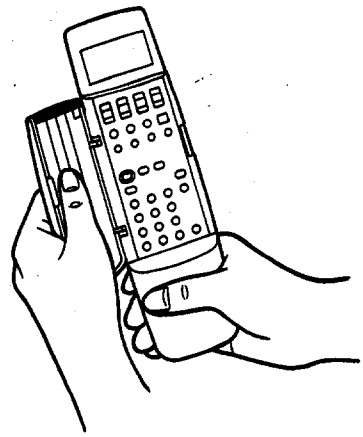
How to refit the Remote Controller Door

If the door of the remote controller is forced to open too much, it may come off. In this case, please follow the steps below.

1 Refit the lower part of the door.



2 Insert the upper part of the door until it locks with a click.

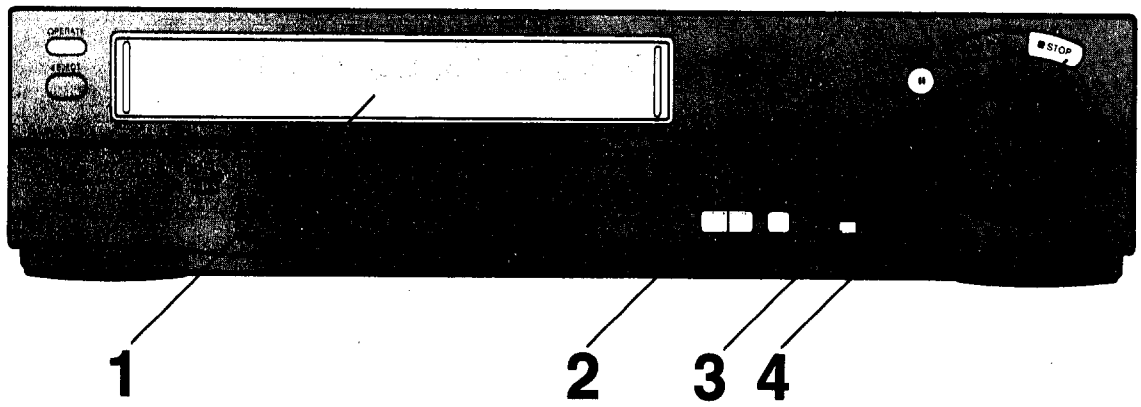


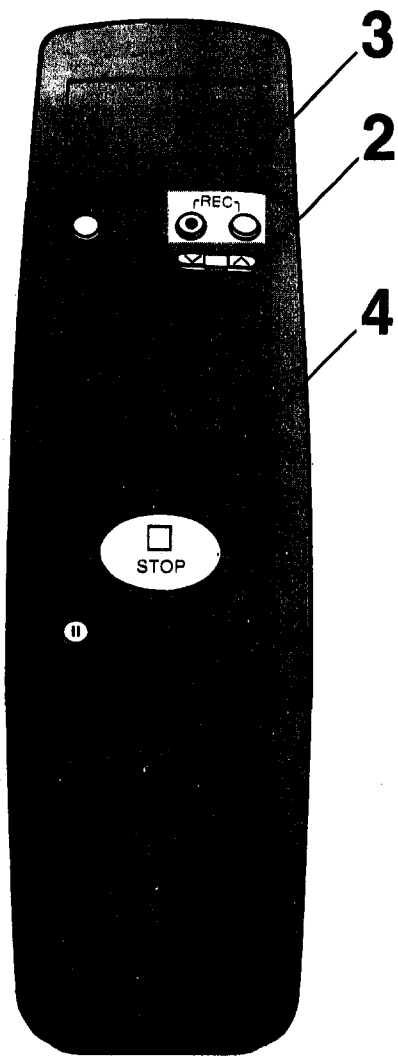
Basic Operations

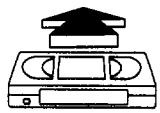
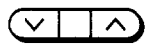
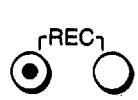
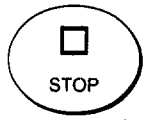
On-the-spot Recording

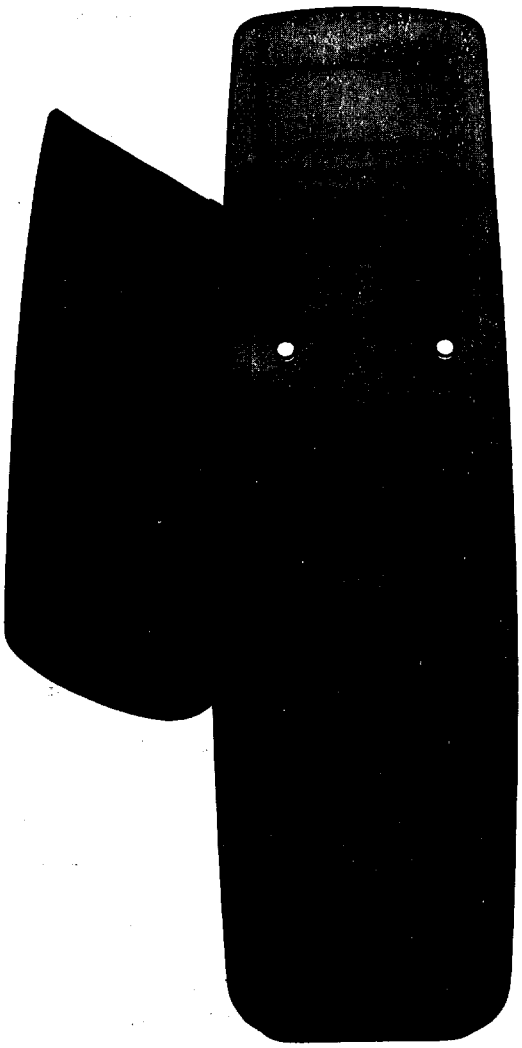
Playback

On-the-spot Recording





Operations	Display Symbols	
1 		Insert a cassette tape. • If it has already been inserted, press **OPERATE** to turn the VTR on.
2 		Select TV station.
3 		Start recording.
4 		Stop recording.



Notes:

- When a video cassette with a broken off tab is inserted, the "■" indication will flash to indicate that recording is not possible.
- The recording pause mode will be automatically released after 5 minutes, and be back to the stop mode.

To select the Desired Tape Speed

Press **SP/LP** before recording.

To interrupt Recording

Press **PAUSE/STILL** during recording.
Press again to continue recording.

To record One TV Programme while Viewing Another Programme

1 Refer to the on-the-spot recording operations steps 1 to 3.

2 Select the TV programme on your TV set you wish to view at the present time.

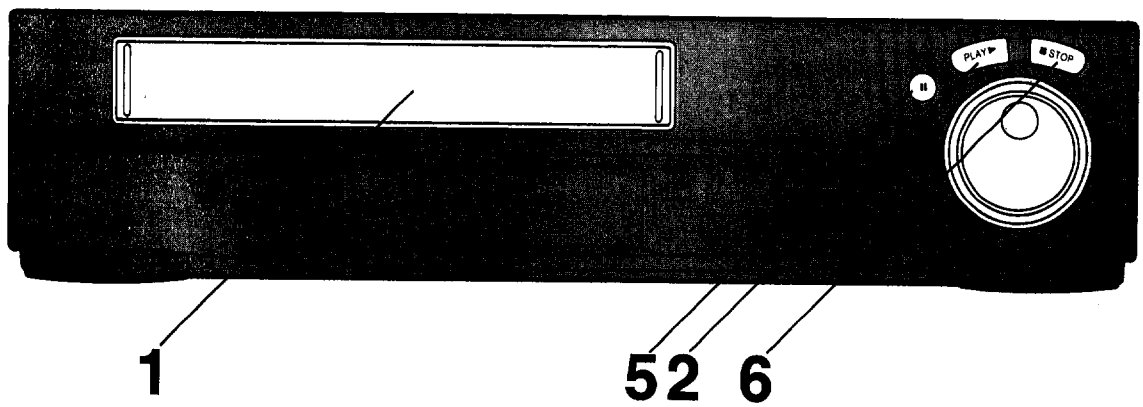
To display the Approximate Remaining Tape Time

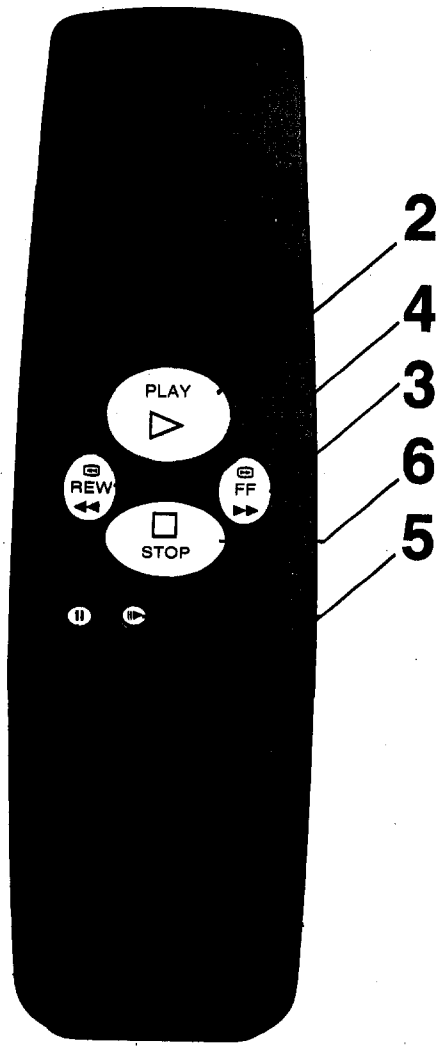
1 Press **TAPE SEL** to select the corresponding cassette tape length.

E195: For E30, -60, -80, -120, -180 and -195 tapes.
E240: For E240 tape.
E260: For E260 tape.

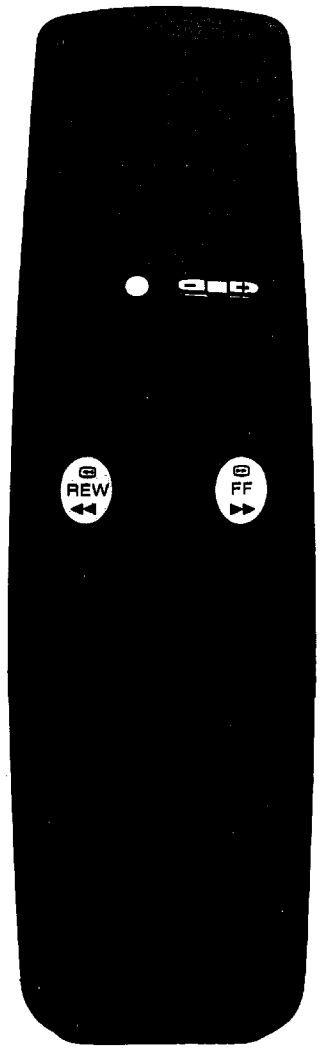
2 Press **DISPLAY**.

Playback





Operations	Display Symbols	
1		Insert a recorded cassette tape.
2 PLAY		Start viewing the picture.
3 FF		Search forward by tapping **FF**. ●To change back to normal playback, press **PLAY**.
4 REW		Search backward by tapping **REW**. ●To change back to normal playback, press **PLAY**.
5 PAUSE/STILL		View a still picture. ●To advance one frame of the still picture, press **STILL ADV**. ●To continue the normal playback, press **PLAY** or **PAUSE/STILL**.
6 STOP		Stop viewing the picture.



Notes:
- Cue, review or slow playback will be automatically released after 10 minutes, and still playback after 5 minutes.
- **STILL ADV** is active after pressing **PAUSE/STILL** of the Remote Controller.

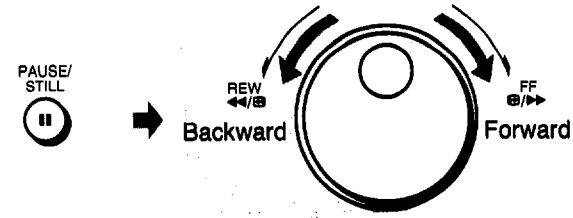
Other Playback Functions

To change the Playback Speed

Using Shuttle Ring:

1 Press **PAUSE/STILL**.

2 Rotate Shuttle Ring.



Using Remote Controller:

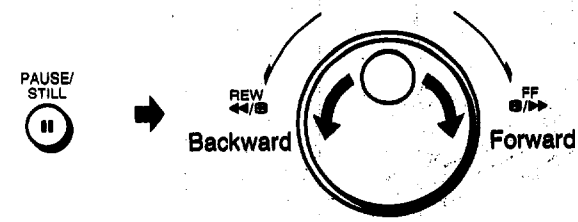
1 Press **SEARCH**.

2 Press **FWD** or **REV** repeatedly.
FWD: To increase the playback speed forward
REV: To increase the playback speed backward

To locate the Desired Picture exactly

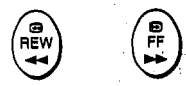
1 Press **PAUSE/STILL**.

2 Turn Jog Dial.

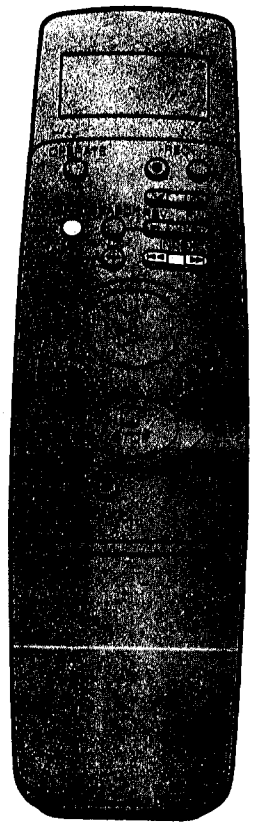


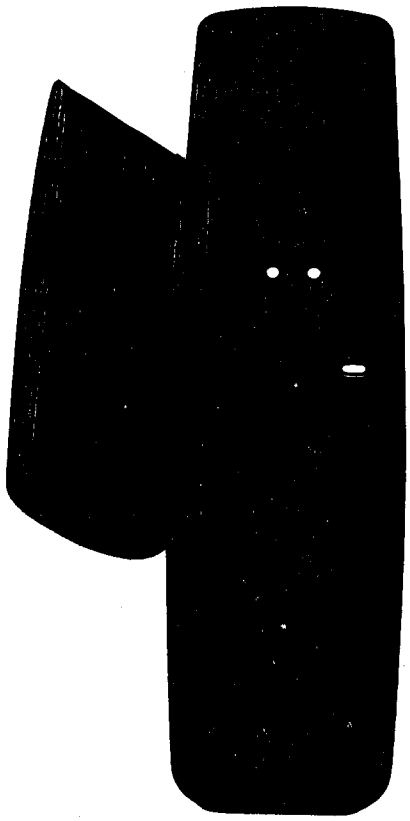
To obtain High Speed Picture during Fast Forward or Rewind

Keep **FF** pressed during fast forward.
Keep **REW** pressed during rewind.



- The same operation can also be performed by turning the Shuttle Ring.





To Skip Scene

Press **SKIP** during playback.

- The following 30 seconds will be skipped.
- Each press gives a 30 seconds time span up to 4 minutes.

To find the Beginning of Each Recording

For example:

Searching for the 2nd recorded segment in the forward direction.

Press **INDEX ▶▶I** twice.

- After finding the specific recorded segment, playback starts automatically.
- For the reverse direction, press **INDEX I◀◀**.
- Up to 20 programmes can be searched for in both directions.
- When the incorrect numerical data has been entered, press **STOP** and enter the correct data.

Recording Index Signals

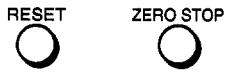
Index signals are recorded in following cases.
WRITE indicator appears on the Display.

- When a recording is started by pressing **REC**.
- When **REC** is pressed during recording.
- When timer recording is activated.

To return to a Specified Scene

1 Press **RESET** to set the counter to 0:00.00.

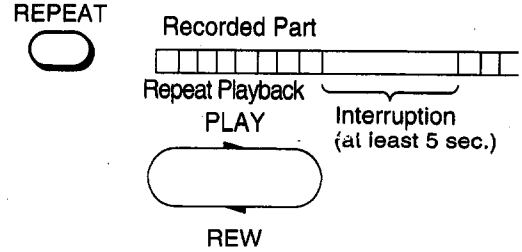
2 After playback, press **ZERO STOP** in the stop mode.



- The tape will be rewound or fast forwarded to 0:00.00.

To playback a Recorded Part repeatedly

Press **REPEAT** in the stop mode.



Advanced Operations

Timer Recording

Up to 8 timer programmes can be recorded up to one month in advance by setting the timer, including daily and weekly programmes.

Editing

Assembly Editing
This enables you to record a new segment immediately after a previously recorded segment.

Insert Editing
This editing method allows a new recorded segment to be inserted into an existing recording to replace an existing segment of the same length.

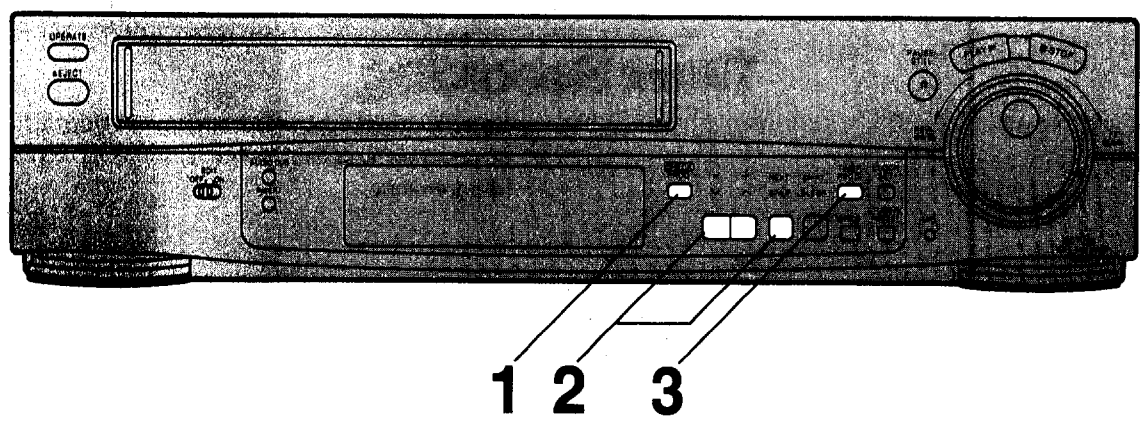
Audio Dubbing
This enables you to record new sound on a previously recorded tape.

Other Functions

Playback of NTSC Tape

Automatic VTR Functions

Timer Recording



Introduction

Up to 8 timer programmes can be recorded up to one month in advance by setting the timer, including daily and weekly programmes.

Preparation

Insert a cassette tape with an intact erasure prevention tab.

For Example:

Timer programme number;	1
Programme position (channel);	2
Date;	27th, October
Starting time;	20:02
Ending time;	21:30
(present date; 16th October)	

Operations		Display Symbols	
1	CHECK PROG	PROG 1	Select **Timer programme number** "1".
2	Set each item by pressing + or − and **NEXT**.		
	− +		Set **Programme position** (channel) "2".
			Set **Date** "27". ●For daily and weekly recording, see next page.
		ON 20:15	Set **Starting time** (hour) "20".
		ON 20:02	Set **Starting time** (minute) "02".
	NEXT	OFF 21:02	Set **Ending time** (hour) "21".
		OFF 21:30	Set **Ending time** (minute) "30". ●There is no need to press **NEXT**.
3	TIMER REC		To activate timer recording, press **TIMER REC**.

Setting for Daily and Weekly Timer Recording

In the Date setting step, press – repeatedly until the desired day(days) is displayed.

Daily recording
From Sunday to Saturday

From Monday to Saturday

From Monday to Friday

Weekly recording
For example, Sunday

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to the AV1 socket or the Audio/Video input sockets, select the A1 or A2 indicator for the programme position.
A1: Through the AV1 socket
A2: Through the Audio/Video input sockets (AV2)

Selecting the Desired Tape Speed

After step 2, press **NEXT** and select SP or LP by pressing + or –.

Setting other Programmes in Succession

Repeat steps 1 and 2.

Checking a Timer Programme

Select the timer programme number to be checked by pressing **CHECK/PROG**.

Cancelling a Timer Programme

1 Release from the standby mode by pressing **TIMER REC**.

2 Select the timer programme number to be canceled by pressing **CHECK/PROG**.

3 Press + and – simultaneously for more than 3 seconds.

Note:
If a timer recording is not performed to the end (due to insufficient tape or cancellation by the user), the programmed timer recording data will be cancelled from the memory by 4 a.m. two days later.
However, if the Timer Record Function is activated at that time, the programmed timer recording data will be cancelled at 4 a.m. the next day.

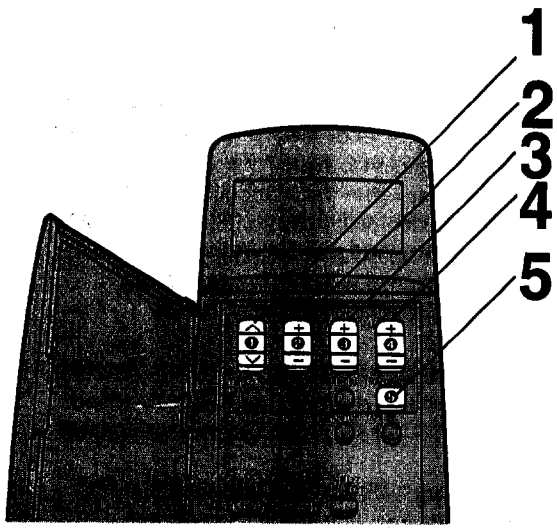
Optional Function

PDC (Programme Delivery Control)

The Programme Delivery Control (PDC) is a very convenient system which assures that the TV programmes you have programmed for timer recording will be recorded exactly from beginning to end, even if the actual broadcasting time differs from the scheduled time due to delayed start or extension of the programme duration. Also, if a programme is interrupted and, for example, some special news are inserted, the recording will also be interrupted automatically and resumed when the programme continues.

- This model is not equipped with PDC function. The PDC function becomes operative when the VTR is equipped with the optional PDC decoder. Consult your authorized video dealer.
- If the VTR is equipped with the PDC decoder, the PDC indicator lights when the correct PDC signals are transmitted from the broadcasting station.
- When the unit is set for programmed recording, the PDC indicator lights whether or not PDC signals are transmitted. This indicates that the recording has been programmed with PDC. To programme a recording without PDC, press **SHIFT**: this cancels the PDC function and turns off the PDC indicator.
- Since PDC signals are received when a recording is programmed using PDC, the power of the unit's tuner section is turned on and the programmed broadcasting is received. When a multiple number of programmes have been programmed for timer recording, all of the broadcasts concerned will be received in sequence. These broadcast pictures can be seen on the video playback channel and AV out (no sound).
- If the actual broadcasting times of timer recordings overlap (regardless of whether they are PDC-controlled), the recording that starts first has always priority, and the recording of the later beginning programme will start only after the first timer recording has finished.
- When the PDC signal drops out because the broadcast signal is weak, or when a broadcasting station does not transmit a regular PDC signal, the timer recording will be performed in the normal mode (without PDC) even if it was programmed for PDC.
  In this case, even if the timer recording is performed, whatever has been programmed will not be cancelled at that particular time but at 4 a.m. on the following day.

Using the Remote Controller



For Example:

Programme position (channel); 2
Date; 27th, October
Starting time; 20:02
Ending time; 21:30

Preparation

- Insert a cassette tape with an intact erasure prevention tab.
- Open the door of the remote controller.

Operations **Display Symbols**

1 Set Programme position (channel) "2".

2 Set Date "27".

3 Set Starting time "20:02".

- When it is kept pressed, the indication changes in 30-minute steps.

4 Set Ending time "21:30".

5 Press **TRANSMIT**.

6 Close the door of the remote controller.

Daily Timer Recording

For this timer function, several groups of days can be selected.

Ⓐ Daily recording from Sunday to Saturday
Ⓑ Daily recording from Monday to Saturday
Ⓒ Daily recording from Monday to Friday

In step 2, select the desired days by pressing **DATE** –.
For Example, Ⓐ

Weekly Timer Recording

In step 2, select the desired day by pressing **DATE** –.
For example, SU (Sunday)

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to the AV1 socket or the Audio/Video input sockets, select the A1 or A2 indicator in step 1 for the programme position.
A1: Through the AV1 socket
A2: Through the Audio/Video input sockets (AV2)

Checking a Timer Programme

- The VTR must be turned on, or the timer recording indicator "◳" is lit.

Press **CHECK** repeatedly until the desired timer programme number is displayed.

Cancelling a Timer Programme

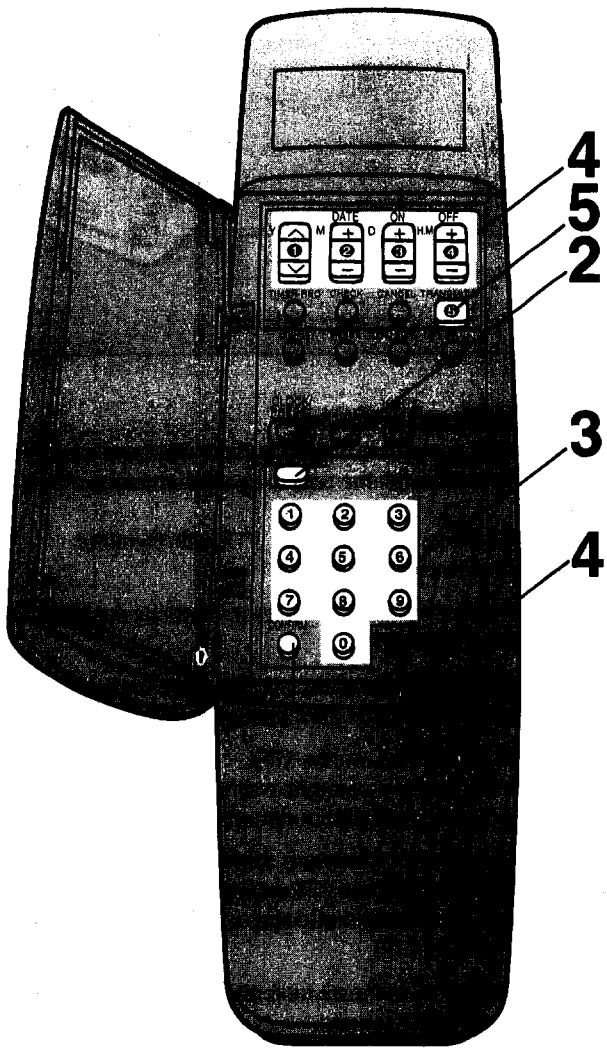
1 Press **CHECK** repeatedly until the desired timer programme number is displayed.

2 Press **CANCEL**.

Note:
The tape speed (SP/LP) cannot be set with the remote controller. Before programming, select SP or LP on the VTR.

Programming the Video Plus+ PlusCode

Programming is now easier than ever: simply enter the PlusCode provided in the programme schedule column carried by newspapers and magazines.
PlusCodes are numbers which are assigned to each programme listed in the TV programme schedule carried in newspapers and TV guides. When these codes are entered and **TRANSMIT** is pressed, the codes are converted into the actual programming and sent to the VTR.



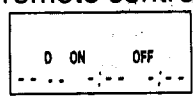
Note:
A satellite receiver cannot be operated using this unit's remote controller.

Preparation

- Insert a cassette tape with an intact erasure prevention tab.
- Set the programme positions on both the VTR and remote controller as shown on page11..

Operations — Display Symbols

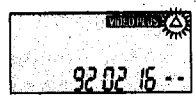
1 Open the door of the remote controller.



2 Press **VIDEO PLUS**.

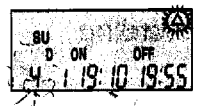
VIDEO PLUS

3 Enter a PlusCode.
Example: 920216



4 Press **CONFIRM** to check that the code corresponds to the right programme.

CONFIRM



- To make any corrections, use buttons ❶~❹.

5 Press **TRANSMIT**.

TRANSMIT ▲
⑤

6 Close the door of the remote controller.

Notes:
- When the PlusCode is used for programming, the recording time may be slightly longer than the actual programme time.
- Repeat steps 2 to 4 if "Err" appears on the remote controller.
- When programming two or more programmes, repeat steps 2 to 5 after pressing **TRANSMIT**.
- The procedures for checking and canceling whatever has been programmed are the same as for remote control programming.
- The tape speed (SP/LP) cannot be set with the remote controller. Before programming, select SP or LP on the VTR.

Editing

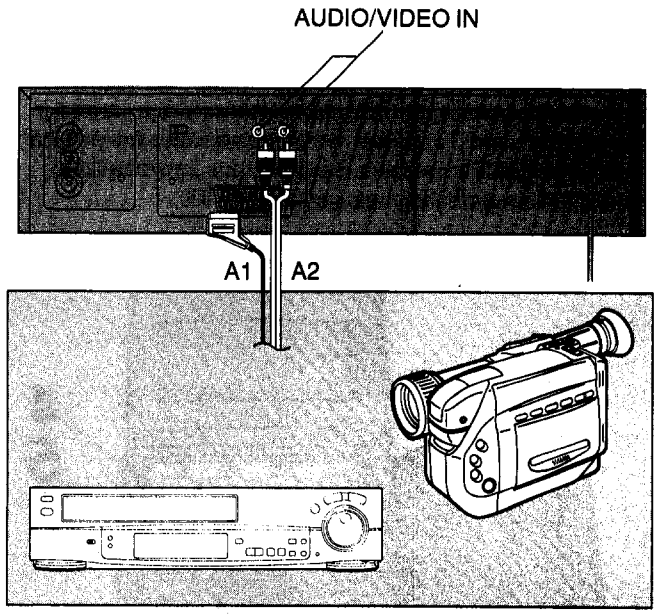
Assembly Editing

This function can be used to make up an edited tape from other recordings or video sources.

A new scene can be added to the end of a previous one.

Preparation

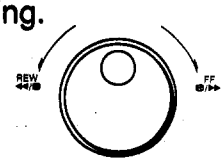
- Connect a movie camera or another VTR to this VTR as shown.
- Insert a recorded cassette tape with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.
  - A1: Through AV1 socket
  - A2: Through Audio/Video input sockets (AV2)
- Set **EDIT** to ON.



Operations

1 Press **PAUSE/STILL**.

2 Search for the end of the previous recording.



3 Set for the new recording by pressing **REC**.

4 Start the new recording by pressing **PAUSE/STILL** again.

Note:
Set **EDIT** to OFF for ordinary use of the VTR.

Synchronized Editing

It is possible to synchronize the playback start and stop of the Movie Camera with the recording start and stop of this VTR.

- Connect a Movie Camera to this VTR with Synchro Connection Cord (optional).

1 Put the VTR in the recording pause mode by pressing **REC** and **PAUSE/STILL**.

2 Put the Movie Camera in the still playback mode at the point where you want to start editing.

3 Press **PAUSE/STILL** on the VTR.
- The Movie Camera changes over to the playback mode and the dubbing will start automatically.

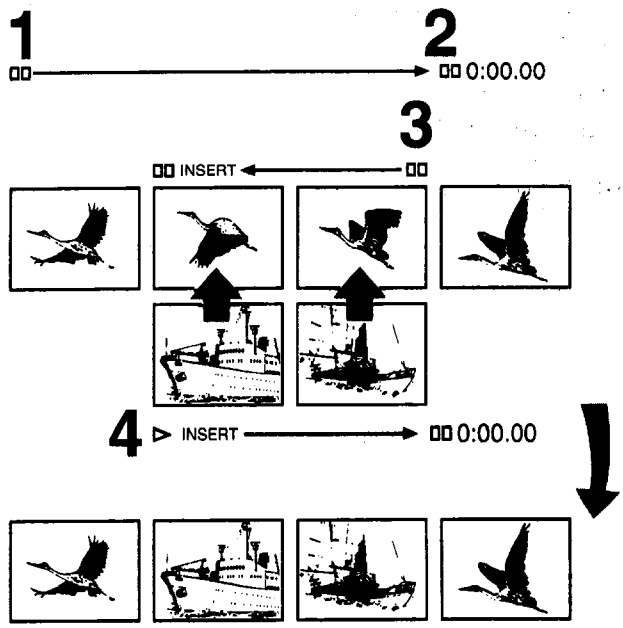
Synchronized Editing between the VTRs

When editing from another VTR equipped with Synchro Edit Socket, synchronized start and stop of both VTRs can be activated from this VTR.

The operation is the same as described for synchronized editing from a Movie Camera.

Insert Editing

This editing method allows a new recorded segment to be inserted into an existing recording to replace an existing segment of the same length.



Preparation

- Insert a recorded cassette with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.
- Set **EDIT** to ON.

Operations	Display Symbols	
1 PAUSE/STILL		Press **PAUSE/STILL**.
2 REW, FF, RESET		Search for the Edit out (ending) point, and set the counter to 0:00.00 by pressing **RESET**.
3 REW, FF, INSERT		Search for the Edit in (starting) point, and press **INSERT**. • If you want to replace the sound too, press **AUDIO DUB** as well.
4 PAUSE/STILL		Start insert editing by pressing **PAUSE/STILL**. • The insert editing will finish when the counter reaches 0:00.00.

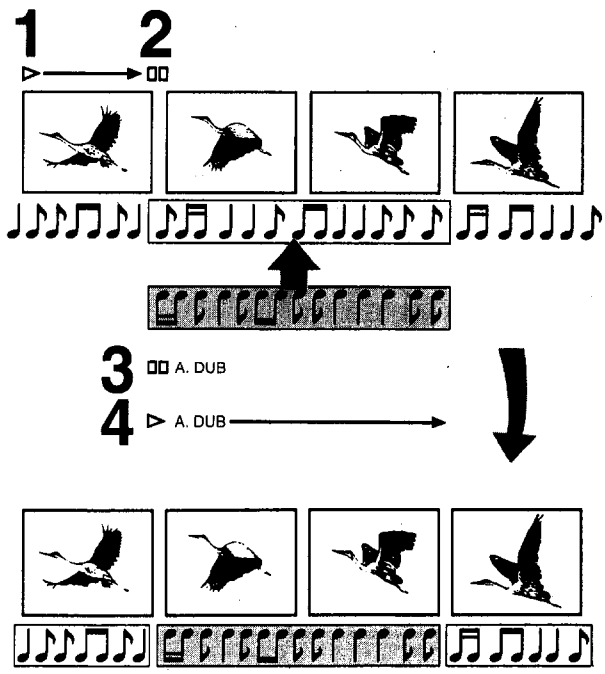
Note:
Insert Editing cannot be used on blank sections of a tape. In this case, use Assembly Editing first.

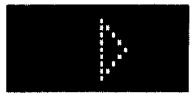
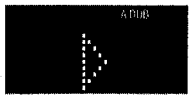
Audio Dubbing

This enables you to record new sound on a previously recorded tape.

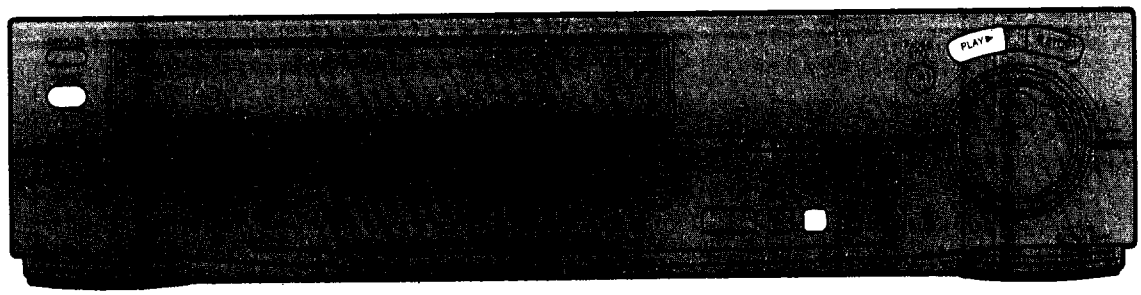
Preparation

- Insert a recorded cassette with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.



Operations		Display Symbols	
1	PLAY ▶		Search for the starting point for audio dubbing.
2	PAUSE/ STILL		Press **PAUSE/STILL** at the starting point.
3	AUDIO DUB		Set for audio dubbing by pressing **AUDIO DUB**.
4	PAUSE/ STILL		Start recording the new sound by pressing **PAUSE/STILL**. • Stop recording by pressing **STOP**.

Other Functions



Playback of NTSC Tape

Tapes recorded in the NTSC system can be played back with this VTR via a PAL system TV set.

- NTSC is the TV broadcasting system used in U.S.A., Japan, and some other countries.
  PAL is another TV broadcasting system used in U.K., Germany and many other parts of the world.
  This VTR will not replay or record tapes on the SECAM broadcasting system.
  NTSC 4.43 is a modified version of the PAL broadcasting system to allow most UK TV's to reproduce a colour picture when an NTSC tape is replayed on this VTR. However due to the system change, the picture may shrink, roll or not reproduce colour on some televisions.

Automatic VTR Functions

Automatic Playback

When a cassette without an erasure prevention tab is inserted, the VTR starts playback automatically.

VTR-off Playback

When the VTR is off, an inserted cassette can be played back by pressing **PLAY**.

Automatic Rewinding

When the tape reaches its end during recording (except for timer recording) or playback, it will automatically be rewound to the beginning.

Automatic Switching Off and Ejection

When the VTR is switched off, an inserted cassette can be ejected simply by pressing **EJECT**. The VTR will eject the cassette and automatically turn itself off again.

Automatic VTR Off Time Setting

Press **SLEEP** for the desired time.

- Each press gives a 30 minutes time span up to 9 hours.
- To cancel the setting time, press **SLEEP** repeatedly to set 0:00.

Helpful Hints

Before Requesting Service

Before requesting service, check the following points once again.

Precautions

Please read these cautions before you operate this VTR.

Specifications

Before Requesting Service

Before requesting service, check the following points once again.

VTR will not operate correctly			
	CAUSE	REMEDY	Reference page
VTR display is not illuminated.	Mains lead is not connected.	Reconnect mains lead to VTR.	
VTR display is illuminated but VTR will not operate.	VTR is in timer mode.	Press TIMER REC to operate VTR manually.	
	Safety devices are operating.	Disconnect mains lead and wait for 1 minute. Reconnect mains supply and check functions.	
	Condensation may have formed.	Do not operate VTR for 1 hour.	
VTR will operate for a few seconds then power off.	Tape jammed in VTR.	If tape jammed in VTR do not attempt to remove, as this may cause damage. Consult your dealer for advice.	
Slow fast-forwarding or rewinding.	Fast-forwarding or rewinding from the middle of the tape.	It is designed for tape protection.	

Playback will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
Picture is noisy or not in colour.	Tracking is not correct.	Although auto-tracking should ensure a good picture it may be necessary to manually adjust tracking on some tapes not recorded on this VTR. See page 19.	
	TV set is not tuned to VTR.	Operate test switch on VTR and check TV tuning. See page 9.	
	Tape is recorded incorrectly.	Check aerial connected to VTR. See page 8.	
		Check that each programme position is tuned to the correct station. A snowy picture on one or more programmes may indicate VTR tuned to weak station or wrong transmitter. Re-tune if necessary. See page 10.	
		If timer record was used, confirm that a programme position had been selected that was correctly tuned.	
	Video heads are clogged.	Codensation may have formed, or a faulty tape has been used. See Tape Care and Video Head Clogging. Do not operate VTR for 1 hour then insert a new tape (the original may be faulty) and playback for a few minutes. If fault does not clear consult your dealer for further advice.	
	Video head is worn.	Carry out same procedure as for clogged video heads. If fault does not clear consult your dealer for advice.	
Horizontal bars or lines run down picture or appear stationary.	Tape defective due to surface damage or wear.	Confirm other tape OK and replace defective tape. See separate section on tape care.	
	Video heads may be worn or service required.	Consult your dealer for further advice.	
VTR goes into auto rewind mode while playing tape.	Tape defective due to surface damage or wear causing end of tape detection to operate.	Replace defective tape.	

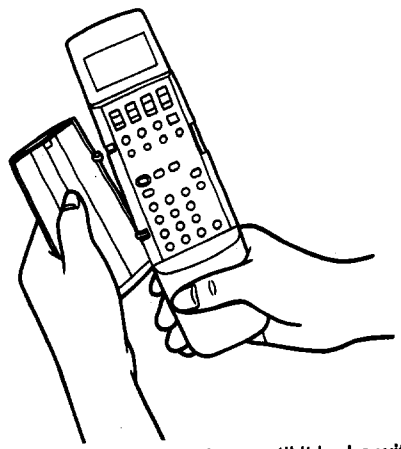
Recording will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
"⊙" indication flashes whenever recording is attempted.	Erasure prevention tab on cassette is broken off.	Use tape with intact erasure prevention tab, or cover tab hole with adhesive tape, if original recording is no longer required.	
Picture is recorded with noise or blank screen.	Aerial or aerial lead is defective.	Check aerial connection to VTR. See page 8. Check your normal TV picture. If there is no picture, check your aerial.	
	VTR is not correctly tuned.	Re-tune VTR. See page 10. Ensure input selector set to TV programme.	
Timer recording cannot be performed.	Clock or calendar is incorrectly set.	Check clock and calendar. Set to present time. (Note this is a 24 hour clock.) See page 12.	
	Recording start or end time settings are incorrect.	Set recording start and end time correctly.	
	VTR is not set for timer recording.	Press TIMER REC often programming for timer recording.	
AV external recordings cannot be made.	Input selector is not correctly set.	Select A1 or A2.	
	External AV connections are incorrect.	Check that connections for external video and audio source are correct. See page 32.	

Remote controller will not work correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
Remote controller does not operate correctly.	Remote controller transmitter beam is not reaching VTR.	Ensure that remote controller is being pointed at VTR and that transmitter beam is not obstructed.	
	Distance is too far.	Use remote controller within 7 m of VTR. If this range is not possible, replace batteries.	
	Batteries are exhausted.	Replace batteries. Note precaution for replacement on page 20.	
	Batteries are incorrectly fitted with (+/−) reversed.	Fit batteries correctly as shown on page 20.	

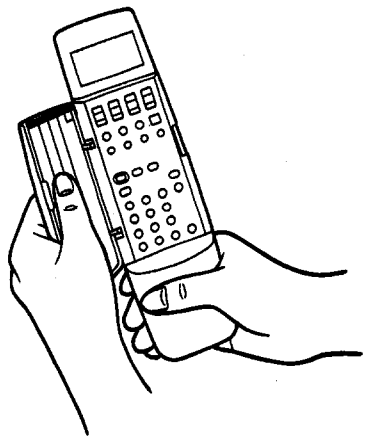
How to refit the Remote Controller Door

If the door of the remote controller is forced to open too much, it may come off. In this case, please follow the steps below.

1 Refit the lower part of the door.



2 Insert the upper part of the door until it locks with a click.



Precautions

Please read these cautions before you operate this VTR.

Avoid Sudden Changes in Temperature

If the VTR is suddenly moved from a cold place to a warm place, condensation may form on the tape and inside the VTR.

Humidity and Dust

Avoid places where there is high humidity or much dust, which may cause damage to internal parts.

Do Not Obstruct the Ventilation Holes

The ventilation holes prevent abnormal increases in temperature. Do not block or cover these holes. Especially avoid covering the holes with soft materials such as cloth or paper.

Keep away from High Temperature

Keep the VTR away from extreme direct heat such as direct sunlight, heating radiators, or closed automobiles.

Keep Magnets away

Never bring a magnet or magnetized object near the VTR because it will adversely affect the performance of the VTR.

No Fingers or Other Objects Inside

Touching internal parts of this VTR is dangerous, and may cause serious damage to the VTR. Do not attempt to disassemble the VTR. There are no user serviceable parts inside.

Keep Water away

Keep the VTR away from flower vases, tubs, sinks, etc.
CAUTION: If liquids are spilled into the VTR, serious damage could occur. If you spill any liquid into the VTR, consult qualified service personnel.

Lightning

To avoid damage by lightning, disconnect the aerial plug from the VTR.

Cleaning the VTR

Wipe the VTR with a clean, dry cloth. Never use cleaning fluid, or other chemicals. And do not use compressed air to remove dust.

Stacking

Place the VTR in a horizontal position, and do not place anything heavy on it.

Video Head Clogging

The video heads place picture signals on the tape during recording and read picture signals from the tape during playback and they are, therefore, of critical importance for the picture quality. If the VTR is used over extremely long periods of time, these heads may still become dirty and clogged. In such a case, the signals can no longer be recorded correctly, and the playback picture will be distorted accordingly. This is the case, when for example, during the playback of a tape, the sound is reproduced normally, but no picture is seen, or the picture is greatly distorted. When such a symptom occurs consult your dealer for further advice.

Condensation may form in the VTR if:

- The VTR is in a room where the heater has just been turned on.
- The VTR is in a room with steam or high humidity.
- The VTR is brought from cold surroundings into a well-heated room.
- The VTR is suddenly brought from cool surroundings, such as an air-conditioned room or car, to a place which is hot and humid.

Note:
Do not operate the VTR for at least 1 hour if any of the above conditions occur.
This VTR does not incorporate a dew sensor.

Tape Care

Some do's and don'ts on tape care.

DO:

1) Use a good quality branded tape, such as Panasonic.
2) Keep in the Box supplied with your tape, or a video case, when not in use.
3) Try to use all the tape on a cassette by making recordings not only at the tape start but also in the middle and end sections. This will avoid many repeated recordings at the beginning of the tape resulting in premature wear.
4) Take care to insert a tape correctly into the VTR to avoid damage.

DO NOT:

1) Expose the tape to high humidity or temperature.
2) Expose to liquid.
3) Expose to dust particles by storing directly on a carpet for example.
4) Use a damaged tape or attempt to repair.
5) Dismantle the cassette housing.
6) Attempt to lift the front cassette flap or touch the tape surface.

Specifications

NV-SD40B...(U.K. model)

Information for Your Safety

Power Source:	220–240 V AC 50–60 Hz
Power Consumption:	Approx. 24 watts
Video Recording System:	2 rotary heads, helical scanning system
Video Heads:	4 heads
Tape Speed:	SP; 23.39 mm/sec. LP; 11.695 mm/sec.
Tape Format:	VHS tape
Record/Playback Time:	SP: [illegible]h NV-E240 LP; 480 min. with NV-E240

VIDEO

Television System:	CCIR; 625 lines, 50 fields, PAL colour signal		
Modulation System:	Luminance; FM azimuth recording Colour signal; converted subcarrier phase shift recording		
Input Level:	VIDEO IN (AV2) (PHONO);	1.0 Vp-p,	75 ohm
	AV1;	1.0 Vp-p,	75 ohm
Output Level:	AV1;	1.0 Vp-p,	75 ohm
	RF Modulated;	UHF channel 36 (±6),	75 ohm, terminated

AUDIO

Input Level:	AUDIO IN (AV2) (PHONO);	more than −10 dBV,	more than 50 kohm
	AV1;	more than −6 dBV,	more than 10 kohm
	MICROPHONE;	−70 dBV,	more than 600 ohm
Output Level:	AV1;	−6 dBV,	1 kohm
Audio Track:	1 track (Normal-mono only)		

Video Horizontal Resolution:	Colour; more than 240 lines (SP)
Signal-to-Noise Ratio:	Video; more than 43 dB (SP) Audio; more than 43 dB (SP)
Audio Frequency Response:	80 Hz–10 kHz (SP)
Operating Temperature:	5°C–40°C
Operating Humidity:	35%–80%
Weight:	4.6 kg
Dimensions:	380 (W)×89 (H)×357 (D) mm
Standard Accessories:	1 pc. RF Coaxial Cable 1 pc. Remote Controller 2 pcs. "R6" size batteries 1 pc. AC Mains Lead

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

B

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